

10550808-296659-EIC SEARCH

STRUCTURE SEARCH (Claims 1,5 & 6)

=> d his l49

(FILE 'HCAPLUS' ENTERED AT 11:08:20 ON 12 JUN 2009)
L49 4 S L46 AND (L47 OR L48)

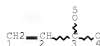
FILE 'REGISTRY' ENTERED AT 11:16:11 ON 12 JUN 2009
SAV TEMP L26 FER808REGA/A

FILE 'HCAPLUS' ENTERED AT 11:17:16 ON 12 JUN 2009
SAV TEMP L49 FER808HCP/A

=> d que stat l49

L4 81856 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 80-62-6/CRN
L5 53869 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 79-41-4/CRN
L6 52656 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 141-32-2/CRN

L8 6751 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L4 AND L5
AND L6
L9 STR



NODE ATTRIBUTES:

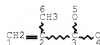
CONNECT IS E1 RC AT 5
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L10 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 5
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

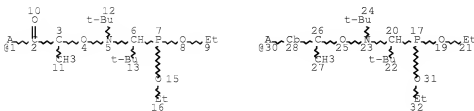
STEREO ATTRIBUTES: NONE

L12 SCR 2043

L14 114589 SEA FILE=REGISTRY SSS FUL L9 AND L10 AND L12

L17 2265 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14(L) BLOCK?

L24 STR



G1 33

VAR G1=1/30

NODE ATTRIBUTES:

NSPEC IS RC AT 1

NSPEC IS RC AT 30

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 28

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L26 63 SEA FILE=REGISTRY SSS FUL L24
 L28 70 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L26
 L29 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L17 AND L28
 L31 4 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON C13 H29 N O4
 P/MF
 L32 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L31 AND
 ?NITROXIDE?/CNS
 L36 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "NITROXIDE,
 1,1-DIMETHYLETHYL 2-METHYL-1-PHENYLPROPYL"/CN
 L37 222 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L32
 L38 104 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L36
 L39 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND (L37
 OR L38)
 L40 88762 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14
 L41 6262 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L8
 L42 88762 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L40 OR L41
 L43 13 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L42 AND L28
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 OR L38)
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 BLOCK?
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 AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT
 L49 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L46 AND (L47
 OR L48)

STRUCTURE SEARCH (Claims 1, 5 & 6)

=> d 149 1-4 ibib ed abs hitstr hitind

L49 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:547687 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:80747
 TITLE: Controlled radical acrylic copolymer
 thickeners
 INVENTOR(S): Schmidt, Scott Charles; Callais, Peter
 Anthony; Macy, Noah Eliot; Guerrett, Olivier
 PATENT ASSIGNEE(S): Arkema Inc., USA
 SOURCE: PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005056739	A1	20050623	WO 2004-US34236	2004 1015

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 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
 MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
 CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2547063	A1	20050623	CA 2004-2547063	2004 1015
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EP 1725637	A1	20061129	EP 2004-820348	2004 1015
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R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
 HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
 JP 2007512413 T 20070517 JP 2006-541164

US 20070082827	A1	20070412	US 2006-578060	2006 0502
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PRIORITY APPLN. INFO.: US 2003-525549P P
 2003
 1126
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 WO 2004-US34236 W
 2004
 1015

ED Entered STN: 24 Jun 2005

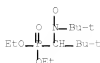
10550808-296659-EIC SEARCH

AB The present invention relates to acrylic block copolymers synthesized by a controlled radical process, and their use as thickeners in oil-based compns. The acrylic copolymers are especially useful as viscosity index improvers in lubricating oil.

IT 188526-94-5 300811-93-2 300811-94-3
 RL: CAT (Catalyst use); USES (Uses)
 (controlled living radical polymerized acrylic copolymer thickeners)

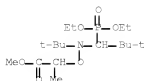
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CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
 1,1-dimethylethyl (CA INDEX NAME)



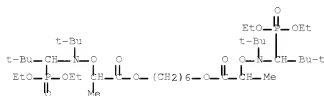
RN 300811-93-2 HCAPLUS

CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
 4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-, methyl ester,
 6-oxide (CA INDEX NAME)



RN 300811-94-3 HCAPLUS

CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
 4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-,
 1,1'-(1,6-hexanediyl) ester, 6,6'-dioxide (CA INDEX NAME)



IT 124331-25-3P 855475-06-0P 855475-09-1P
 855475-10-4P 855475-13-7P 855475-14-8P
 855501-14-3P, Dodecyl methacrylate-methyl acrylate
 triblock copolymer 855501-19-8P, Dodecyl
 methacrylate-ethyl acrylate triblock copolymer
 855507-83-4P
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or
 chemical process); PRP (Properties); PUR (Purification or
 recovery); PYP (Physical process); SPN (Synthetic preparation);
 PREP (Preparation); PROC (Process); USES (Uses)

10550808-296659-EIC SEARCH

(controlled living radical polymerized acrylic copolymer thickeners)

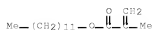
RN 124331-25-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethenylbenzene and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 142-90-5

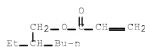
CMF C16 H30 O2



CM 2

CRN 103-11-7

CMF C11 H20 O2



CM 3

CRN 100-42-5

CMF C8 H8



RN 855475-08-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with butyl 2-propenoate, triblock (9CI) (CA INDEX NAME)

CM 1

CRN 142-90-5

CMF C16 H30 O2



CM 2

CRN 141-32-2

10550808-296659-EIC SEARCH

CMF C7 H12 O2



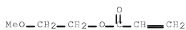
RN 855475-09-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with
2-methoxyethyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 3121-61-7

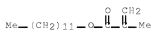
CMF C6 H10 O3



CM 2

CRN 142-90-5

CMF C16 H30 O2



RN 855475-10-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethyl
2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 142-90-5

CMF C16 H30 O2



CM 2

CRN 140-88-5

CMF C5 H8 O2

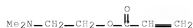


10550808-296659-EIC SEARCH

RN 855475-13-7 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with
 2-(dimethylamino)ethyl 2-propenoate and ethyl 2-propenoate, block
 (9CI) (CA INDEX NAME)

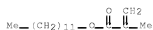
CM 1

CRN 2439-35-2
 CMF C7 H13 N O2



CM 2

CRN 142-90-5
 CMF C16 H30 O2



CM 3

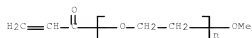
CRN 140-88-5
 CMF C5 H8 O2



RN 855475-14-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethyl
 2-propenoate and α -(1-oxo-2-propenyl)- ω -
 methoxypoly(oxy-1,2-ethanediyl), block (9CI) (CA INDEX NAME)

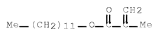
CM 1

CRN 32171-39-4
 CMF (C2 H4 O)_n C4 H6 O2
 CCI PMS



10550808-296659-EIC SEARCH

CM 2

CRN 142-90-5
CMF C16 H30 O2

CM 3

CRN 140-88-5
CMF C5 H8 O2

RN 855501-14-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with methyl
2-propenoate, triblock (9CI) (CA INDEX NAME)

CM 1

CRN 142-90-5
CMF C16 H30 O2

CM 2

CRN 96-33-3
CMF C4 H6 O2

RN 855501-19-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethyl
2-propenoate, triblock (9CI) (CA INDEX NAME)

CM 1

CRN 142-90-5
CMF C16 H30 O2



CM 2

CRN 140-88-5

CMF C5 H8 O2



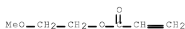
RN 855507-83-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with
2-methoxyethyl 2-propenoate, triblock (9CI) (CA INDEX NAME)

CM 1

CRN 3121-61-7

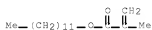
CMF C6 H10 O3



CM 2

CRN 142-90-5

CMF C16 H30 O2



IT 150344-26-6P 855501-08-5P, Methyl
acrylate-dodecyl methacrylate block copolymer, graft
RL: PEP (Physical, engineering or chemical process); PRP
(Properties); PUR (Purification or recovery); PYP (Physical
process); SPN (Synthetic preparation); PREP (Preparation); PROC
(Process)
(controlled living radical polymerized acrylic copolymer
thickeners)

RN 150344-26-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with methyl
2-propenoate, block (CA INDEX NAME)

CM 1

CRN 142-90-5

CMF C16 H30 O2



CM 2

CRN 96-33-3

CMF C4 H6 O2



RN 855501-08-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with methyl
2-propenoate, block, graft (9CI) (CA INDEX NAME)

CM 1

CRN 142-90-5

CMF C16 H30 O2



CM 2

CRN 96-33-3

CMF C4 H6 O2



IC ICM C10M145-14

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 35, 36, 66

ST controlled living radical polymn acrylic block copolymer
thickener; di tri star block copolymer lubricating oil
additive viscosifier; acrylic gradient copolymer thickener
block soly parameter lubricant micelle

IT Amphiphiles

(acrylic block copolymers; controlled living radical
polymerized acrylic copolymer thickeners)

IT Polymers, uses

RL: MOA (Modifier or additive use); PEP (Physical, engineering or
chemical process); PRP (Properties); PUR (Purification or
recovery); PYP (Physical process); SPN (Synthetic preparation);
PREP (Preparation); PROC (Process); USES (Uses)
(block, triblock; controlled living radical polymerized)

acrylic copolymer thickeners)

IT Acrylic polymers, uses
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (block; controlled living radical polymerized acrylic copolymer thickeners)

IT Solubility
 (solubility parameter, of blocks, defined; controlled living radical polymerized acrylic copolymer thickeners)

IT Polymers, uses
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (star-branched, multi-block; controlled living radical polymerized acrylic copolymer thickeners)

IT Acrylic polymers, uses
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (styrene-containing, block; controlled living radical polymerized acrylic copolymer thickeners)

IT 188526-94-5 300811-93-2 300811-94-3
 RL: CAT (Catalyst use); USES (Uses)
 (controlled living radical polymerized acrylic copolymer thickeners)

IT 9003-77-4P, Poly(2-ethylhexyl acrylate) 25153-46-2P, 2-Ethylhexyl acrylate-styrene copolymer 25719-52-2P, Poly(dodecyl methacrylate) 124331-25-5P 745822-11-1P
 855475-08-0P 855475-09-1P 855475-10-4P
 855475-11-5P 855475-13-7P 855475-14-8P
 855501-11-0P, Dodecyl methacrylate-styrene triblock copolymer
 855501-14-3P, Dodecyl methacrylate-methyl acrylate triblock copolymer 855501-19-8P, Dodecyl methacrylate-ethyl acrylate triblock copolymer
 855507-83-4P
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (controlled living radical polymerized acrylic copolymer thickeners)

IT 96-33-3DP, Methyl acrylate, block copolymers containing 100-42-5DP, Styrene, block copolymers containing
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (controlled living radical polymerized acrylic copolymer thickeners)

IT 150344-26-6P 855501-08-5P, Methyl acrylate-dodecyl methacrylate block copolymer, graft
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (controlled living radical polymerized acrylic copolymer thickeners)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2009 ACS ON STN
 ACCESSION NUMBER: 2003:591230 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:134362
 TITLE: Method of producing and using materials which are reinforced against impact and which contain block copolymers that are

10550808-296659-EIC SEARCH

INVENTOR(S): obtained by means of controlled radical polymerization in the presence of nitroxides
Ruzette, Anne-valerie; Chauvin, Florence;
Guerret, Olivier; Bertin, Denis; Vuillemin,
Bruno; Leibler, Ludwik; Gerard, Pierre;
Ederle, Yannick

PATENT ASSIGNEE(S): ATOFINA, Fr.

SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062293	A1	20030731	WO 2003-FR186	2003 0121
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CN 100455614	C	20090128		
US 20060063891	A1	20060323	US 2005-502216	2005 1116
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JP 2008274290	A	20081113	JP 2008-147948	2008 0605
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PRIORITY APPLN. INFO.:			FR 2002-814	A 2002 0122
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			FR 2002-1765	A

2002
0213<--
JP 2003-562170 A32003
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WO 2003-FR186 W2003
0121

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ED Entered STN: 01 Aug 2003

AB The invention relates to the production and use of block copolymers which are obtained by means of controlled radical polymerization in the presence of nitroxides for the purpose of reinforcing brittle polymer matrixes. The invention offers advantages such as (i) simplicity of copolymer synthesis and use and (ii) fine dispersion of the copolymer mols. in the brittle matrix, which ensures both the transparency of the material and high reinforcement against impact. More specifically, the invention relates to the radical synthesis of block copolymers comprising at least three blocks, which include one block having a glass transition temperature of less than 0°C and a thermoplastic end block having a glass transition temperature of more than 0°C, thereby guaranteeing compatibility with the brittle matrix to be reinforced against impact. A typical block copolymer was manufactured by radical polymerization of 3600 g Bu acrylate at 115° in the presence of 59.7073 g CH₂[(CH₂)3OCOCHMeON(CMe₃)CH(CMe₃)P(:O)(OEt)2]2 and 3.1907 g (EtO)2P(:O)CH(CMe₃)N(CMe₃)O•, and polymerization of 6250 g Me methacrylate at 120° in the presence of 1800 g resulting intermediate polymer.

IT 188526-94-5DE, reaction products with Bu acrylate polymers
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (macroinitiator; manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)

RN 188526-94-5 HCAPLUS

CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
 1,1-dimethylethyl (CA INDEX NAME)



IT 108501-18-4P, Butyl acrylate-methyl methacrylate-block copolymer 108501-19-5P, Butyl acrylate-methyl methacrylate-styrene block copolymer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)

RN 108501-18-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, block (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



RN 108501-19-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate and ethenylbenzene, block (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 100-42-5
CMF C8 H8



CM 3

CRN 80-62-6
CMF C5 H8 O2

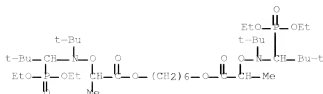


IT 300811-94-3 300811-95-4

RL: IUU (Other use, unclassified); USES (Uses)
(manufacture of block copolymer impact improvers by
controlled radical polymerization in presence of nitroxides and
alkoxyamines)

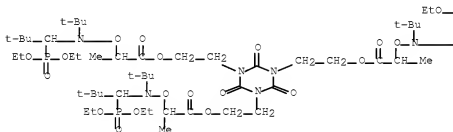
10550808-296659-EIC SEARCH

RN 300811-94-3 HCAPLUS
 CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
 4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-,
 1,1'-(1,6-hexanediyl) ester, 6,6'-dioxide (CA INDEX NAME)



RN 300811-95-4 HCAPLUS
 CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
 4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-,
 (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-
 ethanediyl ester, 6,6',6''-trioxide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08F293-00
 ICS C08L053-00; C08L101-00
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 35
 ST impact improver block copolymer manuf nitroxide
 controlled; butyl acrylate block copolymer manuf
 phosphate ester nitroxide controlled; methyl methacrylate
 block copolymer manuf phosphate ester nitroxide
 controlled; transparent impact resistant plastic
 IT Amines, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (alkoxy; manufacture of block copolymer impact improvers
 by controlled radical polymerization in presence of nitroxides and
 alkoxyamines)
 IT Transparent materials

10550808-296659-EIC SEARCH

- (impact-resistant; manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT Epoxy resins, uses
Fluoropolymers, uses
Polyamides, uses
Polycarbonates, uses
Polyesters, uses
RL: POF (Polymer in formulation); USES (Uses)
(manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT Nitroxides
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT Impact-resistant materials
(transparent; manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT 9003-49-ODP, Polybutyl acrylate, reaction products with diethoxyphosphinyldimethylpropyldimethylethyl nitroxide 25767-47-9DP, Butyl acrylate-styrene copolymer, reaction products with diethoxyphosphinyldimethylpropyldimethylethyl nitroxide 188526-94-5DP, reaction products with Bu acrylate polymers
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(macroinitiator; manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT 108501-18-4P, Butyl acrylate-methyl methacrylate-block copolymer 108501-19-5P, Butyl acrylate-methyl methacrylate-styrene block copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT 300811-94-3 300811-95-4
RL: NUU (Other use, unclassified); USES (Uses)
(manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT 9002-86-2, PVC 9002-88-4, Polyethylene 9003-53-6, Polystyrene 24937-79-9, Polyvinylidene fluoride 25014-41-9, Polyacrylonitrile
RL: POF (Polymer in formulation); USES (Uses)
(manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)
- IT 9011-14-7, PMMA
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(manufacture of block copolymer impact improvers by controlled radical polymerization in presence of nitroxides and alkoxyamines)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:647922 HCAPLUS Full-text
DOCUMENT NUMBER: 138:171878
TITLE: Acrylic coatings produced with controlled radical polymerization techniques
AUTHOR(S): Callais, Peter; Moskal, Michael; Pichai, Puvin; Guerret, Olivier; Charleux, Bernadette

10550808-296659-EIC SEARCH

CORPORATE SOURCE: ATOFINA Chemicals Organic Peroxides R&D, King of Prussia, PA, 19406, USA
 SOURCE: Proceedings of the International Waterborne, High-Solids, and Powder Coatings Symposium (2002), 29th, 197-210
 CODEN: PIWCF4
 PUBLISHER: University of Southern Mississippi, Dep. of Polymer Science
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 28 Aug 2002

AB Free radical polymns. account for more than 50% of the world's polymer production. It is difficult to control these polymns. and synthesize tailored mols. with specific architecture and properties. Several techniques have been researched to develop ways to control free radical polymns. and terms like controlled radical polymerization (CRP) or "living" free radical polymns. have been used to describe the process. The key aspect in CRP is its ability to eliminate the termination of growing free radical chains. This facilitates the synthesis of polymers with low polydispersity, as well as co- and multi-block copolymers. This technol. also allows well-defined polymer modification and grafting. We have developed a family of nitroxide derivs. that can be applied to a wide range of free radical polymns. to perform controlled radical polymer synthesis. This paper will examine the use of two nitroxide compds., namely SG-1 and MONAMS, to synthesize acrylic high solids coating resins with low polydispersity. We will also discuss the production of block copolymers using these nitroxide in a mini-emulsion process. The chemical, synthesis techniques, and properties of these coating resins will be discussed.

IT 355118-27-3P, Butylacrylate-butyl methacrylate block copolymer 731773-80-1P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (diblock; acrylic coatings produced with controlled radical polymerization)

RN 355118-27-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, block (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 97-88-1

CMF C8 H14 O2



RN 731773-80-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, diblock (9CI) (CA INDEX NAME)

CM 1

10550808-296659-EIC SEARCH

CRM 141-32-2
CMF C7 H12 O2

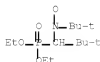


CM 2

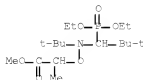
CRM 97-88-1
CMF C8 H14 O2



IT 188526-94-5 300811-93-2
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst; acrylic coatings produced with controlled radical polymerization)
RN 188526-94-5 HCAPLUS
CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
1,1-dimethylethyl (CA INDEX NAME)



RN 300811-93-2 HCAPLUS
CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-, methyl ester,
6-oxide (CA INDEX NAME)



CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 35
ST waterborne coating nitroxide mol wt distribution acrylate
block copolymer; nitroxide control radical polymn acrylic
coating
IT Polymers, properties
RL: PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation)
(block; acrylic coatings produced with controlled radical polymerization)

IT 9003-53-6P, Polystyrene 110772-34-4P, Butylacrylate-styrene block copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(acrylic coatings produced with controlled radical polymerization)

IT 355118-27-3P, Butylacrylate-butyl methacrylate block copolymer 731773-80-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(diblock; acrylic coatings produced with controlled radical polymerization)

IT 870-98-4, tert.-Amyl peroctoate 188526-94-5
300811-93-2
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst; acrylic coatings produced with controlled radical polymerization)

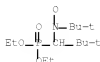
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:624979 HCAPLUS Full-text
DOCUMENT NUMBER: 137:353473
TITLE: Role of nitroxides in the elaboration of new organic materials
AUTHOR(S): Chauvin, F.; Gimes, D.; Marque, S.; Bertin, D.; Tordo, P.; Guerret, O.
CORPORATE SOURCE: UMR 6517 case 521, CNRS, Univ. Aix-marseille, Marseille, 13397, Fr.
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 108-109
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
ED Entered STN: 20 Aug 2002

AB Nitroxides are one of the most efficient and universal controllers of radical reaction involved in synthesis of organic materials. These stable free radicals allow to increase physico-chemical properties of various polymers from commodity polymers to nanostructured materials. One of the advantages is the capacity of using such mols. during the processing of polymers in extruders. Different nitroxides were used as polymerization catalysts and polymer degradation catalysts.

IT 188526-94-5 300811-93-2
RL: CAT (Catalyst use); USES (Uses)
(nitroxides used as universal controllers of radical reaction including polymerization catalysts and polymer degradation catalysts)

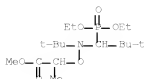
RN 188526-94-5 HCAPLUS
CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl 1,1-dimethylethyl (CA INDEX NAME)



RN 300811-93-2 HCAPLUS

10550808-296659-EIC SEARCH

CN 3,7-Dioxa-4-aza-6-phosphononanoic acid,
4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-, methyl ester,
6-oxide (CA INDEX NAME)



IT 108501-18-4P, n-Butyl acrylate-methyl methacrylate
block copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(nitroxides used as universal controllers of radical reaction
including polymerization catalysts and polymer degradation catalysts)
RN 108501-18-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, block (CA INDEX NAME)

CM 1
CRN 141-32-2
CMF C7 H12 O2



CM 2
CRN 80-62-6
CMF C5 H8 O2



CC 35-8 (Chemistry of Synthetic High Polymers)
IT 2564-83-2, TEMPO 188526-94-5 300811-93-2
RL: CAT (Catalyst use); USES (Uses)
(nitroxides used as universal controllers of radical reaction
including polymerization catalysts and polymer degradation catalysts)
IT 108501-18-4P, n-Butyl acrylate-methyl methacrylate
block copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(nitroxides used as universal controllers of radical reaction
including polymerization catalysts and polymer degradation catalysts)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

STRUCTURE SEARCH (Claims 1 & 5)

=> d his l52

(FILE 'HCAPLUS' ENTERED AT 11:17:16 ON 12 JUN 2009)
 L52 5 S L51 AND (BLOCK? OR COPOLYM? OR CO(N)POLYM?)

=> d que stat l52

L4 81856 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 80-62-6/CRN
 L5 53869 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 79-41-4/CRN
 L6 52656 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 141-32-2/CRN
 L8 6751 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L4 AND L5
 AND L6
 L9 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 5
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L10 STR



NODE ATTRIBUTES:

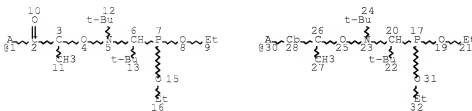
CONNECT IS E1 RC AT 5
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L12 SCR 2043
 L14 114589 SEA FILE=REGISTRY SSS FUL L9 AND L10 AND L12
 L17 2265 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14(L)BLOCK?
 L24 STR



G1 33

VAR G1=1/30

NODE ATTRIBUTES:

NSPEC IS RC AT 1

NSPEC IS RC AT 30

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 28

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L26 63 SEA FILE=REGISTRY SSS FUL L24
 L28 70 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L26
 L29 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L17 AND L28
 L31 4 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON C13 H29 N O4
 P/MF
 L32 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L31 AND
 ?NITROXIDE?/CNS
 L36 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "NITROXIDE,
 1,1-DIMETHYLETHYL 2-METHYL-1-PHENYLPROPYL"/CN
 L37 222 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L32
 L38 104 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L36
 L39 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND (L37
 OR L38)
 L40 88762 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14
 L41 6262 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L8
 L42 88762 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L40 OR L41
 L43 13 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L42 AND L28
 L44 9 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L43 AND (L37
 OR L38)
 L45 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L44 AND
 BLOCK?
 L46 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L39 OR L45
 L47 QUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT
 L48 QUE SPE=ON ABB=ON PLU=ON (PY=<2004 OR PRY=<2004 OR
 AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT
 L49 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L46 AND (L47
 OR L48)
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 (BLOCK? OR COPOLYM? OR CO(A)POLYM?)

STRUCTURE SEARCH RESULTS (Claims 1 & 5)

=> d 152 1-5 ibib ed abs hitstr hitind

L52 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2006:558238 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:28691
 TITLE: Cast plates with improved impact resistance
 based on methyl methacrylate
 copolymers
 INVENTOR(S): Guerret, Olivier; Chenard, Jean-Yves; Ederle,
 Yannick
 PATENT ASSIGNEE(S): Arkema, Fr.
 SOURCE: PCT Int. Appl., 57 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006061523	A1	20060615	WO 2005-FR3087	2005 1209
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
FR 2879205	A1	20060616	FR 2004-13186	2004 1210
<--				
FR 2879205	B1	20070921		
CA 2590548	A1	20060615	CA 2005-2590548	2005 1209
<--				
EP 1858939	A1	20071128	EP 2005-825928	2005 1209
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R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, EG, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2008523191	T	20080703	JP 2007-544948	2005 1209
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KR 2007088683	A	20070829	KR 2007-713040	2007 0608
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MX 2007006922	A	20070904	MX 2007-6922	

10550808-296659-EIC SEARCH

2007
0608

CN 101115778

A

20080130

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CN 2005-80048011

2007
0810

PRIORITY APPLN. INFO.:

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FR 2004-13186

A

2004
1210<--
US 2005-647056P

P

2005
0126

WO 2005-FR3087

W

2005
1209

OTHER SOURCE(S): MARPAT 145:28691

ED Entered STIN: 15 Jun 2006

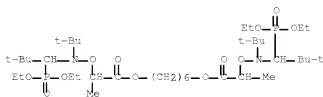
AB Me methacrylate (I) copolymers that provide cast-molded sheets with improve impact strength are manufactured by (1) polymerization of a monomer in the presence of ≥ 1 alkoxyamine having ≥ 2 groups formed from nitroxides [e.g., $[\text{Me}_3\text{CCH}(\text{P}(\text{O})(\text{OEt})_2)\text{N}(\text{CMe}_3)\text{OCHMeCO}_2(\text{CH}_3)]_2$] at temps. sufficient to activate the alkoxyamine to form a core chain (glass-transition temperature $< 0^\circ$), (2) reaction of the core chain optionally, containing unreacted core-chain monomers with monomers destined to form branches (glass-transition temperature $> 0^\circ$), and (3) polymerization of I and, optionally, other monomers in the presence of the product of (2) and ≥ 1 radical initiator.

IT 300811-94-3

RL: CAT (Catalyst use); USES (Uses)
(cast plates with improved impact resistance based on Me methacrylate copolymers manufactured in presence of multifunctional alkoxyamines)

RN 300811-94-3 HCAPLUS

CN 3,7-Dioxa-4-aza-6-phosphononanoic acid,
4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-,
1,1'-(1,6-hexanediyl) ester, 6,6'-dioxide (CA INDEX NAME)



IT 109216-33-3P, Butyl acrylate-methyl methacrylate-styrene graft copolymer

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(cast plates with improved impact resistance based on Me methacrylate copolymers manufactured in presence of multifunctional alkoxyamines)

RN 109216-33-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and ethenylbenzene, graft (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 100-42-5
CMF C8 H8



CM 3

CRN 80-62-6
CMF C5 H8 O2



- CC 37-3 (Plastics Manufacture and Processing)
- ST methyl methacrylate copolymer molding impact strength enhancement; multifunctional alkoxyamine initiator unsatd monomer polymn branched methacrylate copolymer; phosphate multifunctional alkoxyamine initiator unsatd monomer polymn branched copolymer
- IT Amines, uses
RL: CAT (Catalyst use); USES (Uses)
(N-alkoxy; cast plates with improved impact resistance based on Me methacrylate copolymers manufactured in presence of multifunctional alkoxyamines)
- IT Impact-resistant materials
(cast plates with improved impact resistance based on Me methacrylate copolymers manufactured in presence of multifunctional alkoxyamines)
- IT 300811-94-3
RL: CAT (Catalyst use); USES (Uses)
(cast plates with improved impact resistance based on Me methacrylate copolymers manufactured in presence of multifunctional alkoxyamines)
- IT 109216-33-3F, Butyl acrylate-methyl methacrylate-styrene graft copolymer
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(cast plates with improved impact resistance based on Me methacrylate copolymers manufactured in presence of multifunctional alkoxyamines)
- IT 25767-47-9P, Butyl acrylate-styrene copolymer
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(core chain precursor; cast plates with improved impact

10550808-296659-EIC SEARCH

resistance based on Me methacrylate copolymers
 manufactured in presence of multifunctional alkoxyamines)
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L52 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2009 ACS ON STN
 ACCESSION NUMBER: 2004:800858 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:296709
 TITLE: Manufacture of acrylic films from
 block copolymers
 INVENTOR(S): Guerret, Olivier; Gerard, Pierre
 PATENT ASSIGNEE(S): Atofina, Fr.
 SOURCE: Fr. Demande, 19 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2852963	A1	20041001	FR 2003-3681	2003 0326
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FR 2852961	A1	20041001	FR 2003-11174	2003 0924
			<--	
FR 2852961	B1	20060707		
AU 2004226194	A1	20041014	AU 2004-226194	2004 0323
			<--	
CA 2520164	A1	20041014	CA 2004-2520164	2004 0323
			<--	
WO 2004087796	A1	20041014	WO 2004-FR713	2004 0323
			<--	
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, EG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
EP 1611190	A1	20060104	EP 2004-742323	2004 0323
			<--	
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
CN 1795228	A	20060628	CN 2004-80014705	2004 0323
			<--	

10550808-296659-EIC SEARCH

CN 100462393	C	20090218		
JP 2006521441	T	20060921	JP 2006-505747	2004 0323
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MX 2005010169	A	20060302	MX 2005-10169	2005 0923
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IN 2005DN04350	A	20070831	IN 2005-DN4350	2005 0926
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US 20080050572	Al	20080228	US 2007-550808	2007 0126
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PRIORITY APPLN. INFO.:			FR 2003-3681	A 2003 0326
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			FR 2003-11174	A 2003 0924
			<---	
			WO 2004-FR713	W 2004 0323
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ED Entered STN: 01 Oct 2004

AB Films with thickness 40-300 μ m, haze <2%, and breaking elongation >50% are manufactured by extrusion of comps. containing 95-100% \geq 1 (A)nB block copolymers (n \geq 2) and 0-5% \geq 1 A' polymer where A and A' = the same or different mostly methacrylic blocks and B = mostly acrylic blocks prepared by polymerization in the presence of alkoxyamines having \geq 1 alkoxyamine group bonded to an organic or mineral radical and having radicals with mol. weight >16 g/mol bonded to the N such as (EtO)2P(:O)CHMeN(CMe3)OCHMeCO2(CH2)6OCOCHMeOH(CMe3)CH(CMe3)P(:O)(OEt)2. Block B has Tg <0° and represents \leq 50% of the copolymer, and block A optionally contains \leq 20% units based on acrylic monomers.

IT 762301-15-5
 RL: CAT (Catalyst use); USES (Uses)
 (manufacture of transparent ductile acrylic extruded films from block copolymers prepared in presence of alkoxyamine catalysts)

RN 762301-15-5 HCAPLUS
 CN 3,7-Dioxa-4-aza-6-phosphanonaic acid,
 4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-, 1,6-hexanediyl
 ester (9CI) (CA INDEX NAME)



IT 135028-55-6P, Butyl acrylate-methacrylic acid-methyl methacrylate block copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manufacture of transparent ductile acrylic extruded films from block copolymers prepared in presence of

10550808-296659-EIC SEARCH

alkoxyamine catalysts)

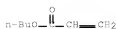
RN 135028-55-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM C08L033-06

ICS C08J005-18; B32B027-30

CC 37-3 (Plastics Manufacture and Processing)

ST transparent ductile acrylic block copolymer
extruded film; phosphonate ester alkoxyamine initiator acrylic
methacrylic copolymer manuf; alkoxyamine initiator
acrylic methacrylic copolymer manuf transparent film

IT Polycarbonates, miscellaneous

RL: MSC (Miscellaneous)

(coating substrate; manufacture of transparent ductile acrylic
extruded films from block copolymers prepared
in presence of alkoxyamine catalysts for coatings)

IT Coating materials

(manufacture of transparent ductile acrylic extruded films from
block copolymers prepared in presence of
alkoxyamine catalysts for coatings)

IT Laminated plastics, miscellaneous

RL: MSC (Miscellaneous)

(manufacture of transparent ductile acrylic extruded films from
block copolymers prepared in presence of
alkoxyamine catalysts for laminates)

IT 9002-86-2, PVC 9003-07-0, Polypropylene 9003-53-6, Polystyrene
9003-56-9, ABS polymer

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RL: MSC (Miscellaneous)

(coating substrate; manufacture of transparent ductile acrylic extruded films from block copolymers prepared in presence of alkoxyamine catalysts for coatings)

IT 762301-15-5

RL: CAT (Catalyst use); USES (Uses)

(manufacture of transparent ductile acrylic extruded films from block copolymers prepared in presence of alkoxyamine catalysts)

IT 135028-55-6P, Butyl acrylate-methacrylic acid-methyl

methacrylate block copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(manufacture of transparent ductile acrylic extruded films from block copolymers prepared in presence of alkoxyamine catalysts)

REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2009 ACS ON STM

ACCESSION NUMBER: 2004:492328 HCAPLUS Full-text

DOCUMENT NUMBER: 141:38999

TITLE: Gradient copolymers that are as soluble or at least as dispersible in water as in organic solvents

INVENTOR(S): Guerret, Olivier

PATENT ASSIGNEE(S): Atofina, Fr.

SOURCE: Fr. Demande, 24 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2848557	A1	20040618	FR 2002-15852	
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2002

1213

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FR 2848557	B1	20060707		
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CA 2509828	A1	20040701	CA 2003-2509828	
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2003

1211

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WO 2004055071	A1	20040701	WO 2003-FR3669	
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2003

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,

KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,

SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,

UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,

AZ, BY, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,

PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,

GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003296815	A1	20040709	AU 2003-296815	
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EP 1583781	A1	20051012	EP 2003-813161	
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10550808-296659-EIC SEARCH

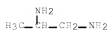
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EP 1583781	B1	20080702			
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US 20060058467	A1	20060316	US 2005-538730		2005 0613
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PRIORITY APPLN. INFO.:			FR 2002-15852	A	2002 1213
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			WO 2003-FR3669	W	2003 1211
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OTHER SOURCE(S):	MARPAT 141:38999				
ED	Entered STN: 18 Jun 2004				
AB	Amphiphilic gradient copolymers with the title property, useful in paints, adhesives, and cosmetics, comprise at least units of a monomer (M1) that forms homopolymers with glass-transition temps. (Tg) <20° and of a monomer (M2) that forms homopolymers with Tg >20°, with the latter monomer being >50% of the copolymer, 21 of the monomers being hydrophilic and being ≥5% of the copolymer, so that the gradient chain structure (G) is governed by the relation $G(x) = \sum [M_i](x)$, where x is the normalized position on the polymer chain and $[M_i](x)$ is the concentration relative to this position of the monomer M _i (expressed in mol). These polymers are manufactured by radical polymn at 10-160° in the presence of an initiator and R'RLCHNRO• [R', R = C1-40 alkyl (optionally substituted by OH, alkoxy, or amino), or may bond together to form a ring, RL = group having mol. weight >16 such as (R''O)(R'''O)P(O), R'', R''' = C1-40 alkyl (optionally substituted by OH, alkoxy, or amino), or may bond together to form a ring] (I) as mediators or in the presence of a combination of I and [R'RLCHNRO]nZ (R', RL, R = same as in I, Z = mono- or multivalent radical bearing styryl-, acryl-, or methacryl-type groups, n < 8). A typical polymer was manufactured by heating (EtO)2P(O)C(CMe3)N(CMe3)OCHMeOCOME 3, (EtO)2P(O)C(CMe3)N(CMe3)O• 0.18, Et acrylate 480, styrene 60, and methacrylic acid 60 g 198 min at 110-115°.				
IT	702659-10-7P 702659-11-8P				
	RL: IMF (Industrial manufacture); PREP (Preparation) (gel; manufacture of water-dispersible or -soluble amphiphilic gradient copolymers in presence of catalyst-amine oxide or alkoxyamine-amine oxide mixts.)				
RN	702659-10-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and				

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methyl 2-propenoate, compd. with 1,2-propanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 78-90-0
CMF C3 H10 N2



CM 2

CRN 29407-83-8
CMF (C8 H8 . C4 H6 O2 . C4 H6 O2)x
CCI PMS

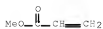
CM 3

CRN 100-42-5
CMF C8 H8



CM 4

CRN 96-33-3
CMF C4 H6 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2



RN 702659-11-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-propenoate, compd. with 2-[bis(1-methylethyl)amino]ethanol and 1,2-propanediamine (9CI) (CA INDEX NAME)

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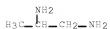
CM 1

CRN 96-80-0
CMF C8 H19 N O



CM 2

CRN 78-90-0
CMF C3 H10 N2



CM 3

CRN 29407-83-8
CMF (C8 H8 . C4 H6 O2 . C4 H6 O2)x
CCI PMS

CM 4

CRN 100-42-5
CMF C8 H8



CM 5

CRN 96-33-3
CMF C4 H6 O2

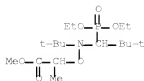


CM 6

CRN 79-41-4
CMF C4 H6 O2



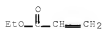
IT 300811-93-2
 RL: CAT (Catalyst use); USES (Uses)
 (manufacture of water-dispersible or -soluble amphiphilic gradient
 copolymers in presence of catalyst-amine oxide or
 alkoxyamine-amine oxide mixts.)
 RN 300811-93-2 HCAPLUS
 CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
 4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-, methyl ester,
 6-oxide (CA INDEX NAME)



IT 25035-68-1P, Ethyl acrylate-methacrylic acid-styrene
 copolymer 25036-16-2P, Butyl
 acrylate-methacrylic acid-styrene copolymer
 29407-83-8P, Methacrylic acid-methyl acrylate-styrene
 copolymer 30970-31-1P, Ethyl
 acrylate-methacrylic acid-methyl acrylate-styrene
 copolymer 31671-56-4P, Butyl acrylate-ethyl
 acrylate-methacrylic acid-styrene copolymer
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP
 (Physical, engineering or chemical process); PREP (Preparation);
 PROC (Process)
 (manufacture of water-dispersible or -soluble amphiphilic gradient
 copolymers in presence of catalyst-amine oxide or
 alkoxyamine-amine oxide mixts.)
 RN 25035-68-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and ethyl
 2-propenoate (CA INDEX NAME)

CM 1

CRN 140-88-5
 CMF C5 H8 O2



CM 2

CRN 100-42-5
 CMF C8 H8



CM 3

CRN 79-41-4
CMF C4 H6 O2

RN 25036-16-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2

CM 2

CRN 100-42-5
CMF C8 H8

CM 3

CRN 79-41-4
CMF C4 H6 O2

RN 29407-83-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-propenoate (CA INDEX NAME)

CM 1

CRN 100-42-5
CMF C8 H8



CM 2

CRN 96-33-3

CMF C4 H6 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



RN 30970-31-1 HCAPLUS

CM 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl
2-propenoate, and methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 96-33-3

CMF C4 H6 O2



CM 4

 CRM 79-41-4
 CMF C4 H6 O2


RN 31671-56-4 HCAPLUS

 CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
 ethenylbenzene and ethyl 2-propenoate (CA INDEX NAME)

CM 1

 CRM 141-32-2
 CMF C7 H12 O2


CM 2

 CRM 140-88-5
 CMF C5 H8 O2


CM 3

 CRM 100-42-5
 CMF C8 H8


CM 4

CRM 79-41-4

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CMF C4 H6 O2



IT 702659-07-2E, Butyl acrylate-methacrylic acid-styrene
copolymer salt with 2-amino-2-methylpropanol
702659-09-4P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts.)
RN 702659-07-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and
ethenylbenzene, compd. with 2-amino-2-methyl-1-propanol (9CI) (CA
INDEX NAME)

CM 1

CRN 124-68-5
CMF C4 H11 N O



CM 2

CRN 25036-16-2
CMF (C8 H8 . C7 H12 O2 . C4 H6 O2)x
CCI PMS

CM 3

CRN 141-32-2
CMF C7 H12 O2



CM 4

CRN 100-42-5
CMF C8 H8



10550808-296659-EIC SEARCH

CM 5

CRN 79-41-4

CMF C4 H6 O2



RN 702659-09-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and ethyl 2-propenoate, compd. with 2-amino-2-methyl-1-propanol (CA INDEX NAME)

CM 1

CRN 124-68-5

CMF C4 H11 N O



CM 2

CRN 25035-68-1

CMF (C8 H8 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 3

CRN 140-88-5

CMF C5 H8 O2



CM 4

CRN 100-42-5

CMF C8 H8



CM 5

10550808-296659-EIC SEARCH

CRN 79-41-4
CMF C4 H6 O2

CH2
Me-ll-CO2H

- IC ICM C08F220-12
ICS C08F293-00; C08F002-38; C09J133-06; C09D133-06; A61K007-00;
C08F236-04; C08F220-06
- CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38, 42, 62
- ST gradient copolymer water thinnable paint adhesive
cosmetic; butyl acrylate styrene methacrylic acid gradient polymer
manuf; nitroxide mediator gradient acrylic polymer manuf;
alkoxyamine initiator gradient acrylic polymer manuf
- IT Amphiphiles
Hydrogels
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts.)
- IT Amine oxides
RL: NUU (Other use, unclassified); USES (Uses)
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts.)
- IT Paints
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts. for paints)
- IT Adhesives
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts. for paints for adhesives)
- IT Cosmetics
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts. for paints for cosmetics)
- IT Polymerization
Polymerization catalysts
(radical; manufacture of water-dispersible or -soluble amphiphilic
gradient copolymers in presence of catalyst-amine
oxide or alkoxyamine-amine oxide mixts.)
- IT 702659-10-7P 702659-11-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(gel; manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts.)
- IT 300811-93-2
RL: CAT (Catalyst use); USES (Uses)
(manufacture of water-dispersible or -soluble amphiphilic gradient
copolymers in presence of catalyst-amine oxide or
alkoxyamine-amine oxide mixts.)
- IT 25035-68-1P, Ethyl acrylate-methacrylic acid-styrene
copolymer 25036-16-2P, Butyl
acrylate-methacrylic acid-styrene copolymer
29407-83-8P, Methacrylic acid-methyl acrylate-styrene
copolymer 30970-31-1P, Ethyl
acrylate-methacrylic acid-methyl acrylate-styrene
copolymer 31671-56-4P, Butyl acrylate-ethyl
acrylate-methacrylic acid-styrene copolymer
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP
(Physical, engineering or chemical process); PREP (Preparation);

10550808-296659-EIC SEARCH

PROC (Process)
 (manufacture of water-dispersible or -soluble amphiphilic gradient copolymers in presence of catalyst-amine oxide or alkoxyamine-amine oxide mixts.)

IT 702659-07-2P, Butyl acrylate-methacrylic acid-styrene copolymer salt with 2-amino-2-methylpropanol 702659-09-4P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (manufacture of water-dispersible or -soluble amphiphilic gradient copolymers in presence of catalyst-amine oxide or alkoxyamine-amine oxide mixts.)

IT 188526-94-5

RL: NUU (Other use, unclassified); USES (Uses)
 (manufacture of water-dispersible or -soluble amphiphilic gradient copolymers in presence of catalyst-amine oxide or alkoxyamine-amine oxide mixts.)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STM

ACCESSION NUMBER: 2004:120516 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:164357

TITLE: Alkoxyamines from β -phosphorated nitroxides and their use in radical polymerization

INVENTOR(S): Couturier, Jean Luc; Guerret, Olivier; Bertin, Denis

PATENT ASSIGNEE(S): Atofina, Fr.

SOURCE: Fr. Demande, 30 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2843393	A1	20040213	FR 2002-10030	2002 0807
FR 2843393	B1	20051230	<--	
FR 2843394	A1	20040213	FR 2003-3169	2003 0502
FR 2843394	B1	20051230	<--	
CA 2494826	A1	20040219	CA 2003-2494826	2003 0723
WO 2004014926	A2	20040219	WO 2003-FR2328	2003 0723
WO 2004014926	A3	20040408	<--	
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,			

10550808-296659-EIC SEARCH

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EP 1527079	B1	20061220	
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JP 4203820	B2	20090107	
AT 348833	T	20070115	AT 2003-753662
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ES 2279146	T3	20070816	ES 2003-753662
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10550808-296659-EIC SEARCH

2003
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WO 2003-FR2328 W
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IN 2005-DN502 A3
2005
0209

OTHER SOURCE(S): MARPAT 140:164357

ED Entered STN: 13 Feb 2004

AB R2OCOC2ON(CMe3)CH[P:O(OEt)2]CMe2CHR1(R = Cl-3 alkyl, R1 = H or OCOR3, R3 = Cl-20 alkyl, R2 = H, Cl-8 alkyl, Ph, Li, Na, K, H4N, BuN, or Bu3HN, with the exclusion of R1 = H and R2 = Cl-6 alkyl) are useful as initiators for radical polymerization of acrylates with high propagation rate consts. while decreasing the risk of out-of-control reaction in the manufacture of high mol. weight polymers.

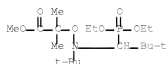
IT 288583-07-3P 634636-63-2P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(alkoxyamines from β -phosphorated nitroxides for catalysts in radical polymerization of acrylates)

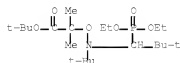
RN 288583-07-3 HCAPLUS

CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
4,5-bis(1,1-dimethylethyl)-6-ethoxy-2,2-dimethyl-, methyl ester,
6-oxide (CA INDEX NAME)



RN 654636-63-2 HCAPLUS

CN 3,7-Dioxa-4-aza-6-phosphanonanoic acid,
4,5-bis(1,1-dimethylethyl)-6-ethoxy-2,2-dimethyl-,
1,1-dimethylethyl ester, 6-oxide (CA INDEX NAME)



IT 25852-37-3P, Butyl acrylate-methyl methacrylate
copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)
(alkoxyamines from β -phosphorated nitroxides for catalysts in radical polymerization of acrylates)

RN 25852-37-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate (CA INDEX NAME)

CM 1

CRN 141-32-2

10550808-296659-EIC SEARCH

CMF C7 H12 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



IC ICM C07F009-40
ICS C08F002-38; C08F004-32; C08F120-18; C08F220-14; C08F220-18
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23
IT 288583-07-3P 654636-62-1P 654636-63-2P
654636-64-3P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP
(Preparation); USES (Uses)
(alkoxyamines from β -phosphorated nitroxides for catalysts
in radical polymerization of acrylates)
IT 9003-49-0P, Poly(butyl acrylate) 9011-14-7P, PMMA
25852-37-3P, Butyl acrylate-methyl methacrylate
copolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(alkoxyamines from β -phosphorated nitroxides for catalysts
in radical polymerization of acrylates)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L52 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:610100 HCAPLUS Full-text
DOCUMENT NUMBER: 139:151190
TITLE: Preparation of resins for high-solids coatings
via controlled radical polymerization
INVENTOR(S): Callais, Peter A.; Pichai, Puvin; Moskal,
Michael G.; Guerret, Olivier
PATENT ASSIGNEE(S): Atofina Chemicals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030149205	A1	20030807	US 2002-61423	2002 0201
US 6762263	B2	20040713		
AU 2002301897	A1	20030821	AU 2002-301897	

10550808-296659-EIC SEARCH

2002
1031

2002
1119

2002
1126

2003
0121

2003
0121

2003
0129

2002
0201

OTHER SOURCE(S): MARPAT 139:151190

ED Entered STIN: 08 Aug 2003

AB Polymers with solids content and viscosity suitable for use in low volatile organic solvent coating compns. are prepared by controlled radical solution polymerization of monomers comprising substituted or unsubstituted acrylic acid, or esters thereof in a solvent suitable for high solids coating application at a monomer concentration sufficient to give the desired polymer concentration by treating the monomers in the solvent with a controlled radical initiator selected from N,N-dialkyl-alkoxyamines having one hydrogen atom on one carbon atom in the a position of one alkyl group attached to the amino nitrogen, nitroxyl radicals having one hydrogen atom on one carbon atom in the a position of one alkyl group attached to the nitroxyl nitrogen and mixts. thereof. A Bu acrylate-2-hydroxyethyl acrylate-styrene copolymer was prepared using Me 2-[N-tert-butyl-N-(1-diethylphosphono-2,2- dimethylpropyl)-N-oxy]propionate initiator.

IT 300811-93-2
RL: CAT (Catalyst use); USES (Uses)
(preparation of resins for high-solids coatings via controlled radical polymerization)

RN 300811-93-2 HCAPLUS

CN 3,7-Dioxo-4-aza-6-phosphanonoic acid,
4,5-bis(1,1-dimethylethyl)-6-ethoxy-2-methyl-, methyl ester,
6-oxide (CA INDEX NAME)

10550808-296659-EIC SEARCH



IC ICM C08F002-00
 INCL 526220000; 526319000; 526317100; 526346000; 526330000
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 224575-62-6 288583-05-1 360811-93-2 462104-38-7
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of resins for high-solids coatings via controlled radical polymerization)
 IT 25067-83-8P, Acrylic acid-butyl acrylate-2-hydroxyethyl acrylate-styrene copolymer 26587-25-7P, Butyl acrylate-2-hydroxyethyl acrylate-styrene copolymer 94798-18-2P, Butyl acrylate-butyl methacrylate-2-hydroxyethyl acrylate-styrene copolymer 572925-38-3P
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (preparation of resins for high-solids coatings via controlled radical polymerization)
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

STRUCTURE SEARCH (Claims 1 & 6)

=> d his l57

(FILE 'HCAPLUS' ENTERED AT 11:17:16 ON 12 JUN 2009)
 L57 8 S L56 NOT (L49 OR L52)

=> d que stat l57

L4 81856 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 80-62-6/CRN
 L5 53869 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 79-41-4/CRN
 L6 52656 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 141-32-2/CRN
 L8 6751 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L4 AND L5
 AND L6
 L9 STR



NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 5
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

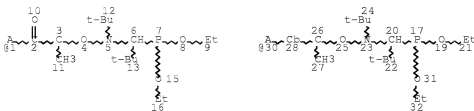
STEREO ATTRIBUTES: NONE
 L10 STR



NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 5
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L12 SCR 2043
 L14 114589 SEA FILE=REGISTRY SSS FUL L9 AND L10 AND L12
 L17 2265 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14(L)BLOCK?
 L24 STR



G1 33

VAR G1=1/30

NODE ATTRIBUTES:

NSPEC IS RC AT 1

NSPEC IS RC AT 30

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 28

DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L26 63 SEA FILE=REGISTRY GSS FUL L24
 L28 70 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L26
 L29 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L17 AND L28
 L31 4 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON C13 H29 N O4
 P/MF
 L32 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L31 AND
 ?NITROXIDE?/CNS
 L36 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "NITROXIDE,
 1,1-DIMETHYLETHYL 2-METHYL-1-PHENYLPROPYL"/CN
 L37 222 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L32
 L38 104 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L36
 L39 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND (L37
 OR L38)
 L40 88762 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14
 L41 6262 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L8
 L42 88762 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L40 OR L41
 L43 13 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L42 AND L28
 L44 9 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L43 AND (L37
 OR L38)
 L45 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L44 AND
 BLOCK?
 L46 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L39 OR L45
 L47 QUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT
 L48 QUE SPE=ON ABB=ON PLU=ON (PY=<2004 OR PRY=<2004 OR
 AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT
 L49 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L46 AND (L47
 OR L48)
 L50 9 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L43 AND (L47
 OR L48)
 L51 5 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L50 NOT L49
 L52 5 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L51 AND
 (BLOCK? OR COPOLYM? OR CO(A)POLYM?)
 L53 29 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L42 AND (L37
 OR L38)
 L54 29 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L53 AND
 (BLOCK? OR COPOLYM? OR CO(A)POLYM?)
 L55 29 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L54 AND
 ?ACRYL?

10550808-296659-EIC SEARCH

L56	14	SEA	FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L55	AND	(L47
							OR		L48)
L57	8	SEA	FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L56	NOT	(L49
							OR		L52)

10550808-296659-EIC SEARCH

=> d 157 1-8 ibib ed abs hitstr hitind

L57 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2006:634432 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:83820
 TITLE: Use of copolymers with a composition
 gradient as sole stabilizer in emulsion
 free-radical polymerization
 INVENTOR(S): Magnet, Stephanie; Guerret, Olivier; Lefay,
 Catherine; Charleux, Bernadette
 PATENT ASSIGNEE(S): Arkema, Fr.
 SOURCE: PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2006066971	A1	20060629	WO 2005-EP14169	
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2005

1222

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
 LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ,
 OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
 SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
 ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
 HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI,
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
 NE, SH, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL,
 SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

FR 2880024	A1	20060630	FR 2004-13813	
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2004

1223

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FR 2880024	B1	20070202		
CN 101094871	A	20071226	CN 2005-80044413	

2005

1222

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JP 2008525547	T	20080717	JP 2007-547396	
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2005

1222

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EP 2054447	A1	20090506	EP 2005-825367	
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2005

1222

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R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
 HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE,
 SI, SK, TR

MX 2007007755	A	20070817	MX 2007-7755	
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2007

0622

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KR 2007093069	A	20070917	KR 2007-714212	
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2007

0622

10550808-296659-EIC SEARCH

IN 2007DN04975

A

20070817

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IN 2007-DN4975

2007

0627

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PRIORITY APPLN. INFO.:

FR 2004-13813

A

2004

1223

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WO 2005-EP14169

W

2005

1222

ED Entered STN: 30 Jun 2006

AB The copolymers are prepared via controlled free-radical polymerization and comprise 55 mol% at least one hydrophilic monomer and 45 mol% at least one hydrophobic monomer. Thus, 20.7 g acrylic acid and 30 g styrene were polymerized in 139 g 1,4-dioxane at 120° for 240 min in the presence of 5 mol% N-tert-butyl-N-(1-diethylphosphono-2,2-dimethylpropyl) nitroxide and 2-methyl-2-[N-tert-butyl-N-(diethoxyphosphoryl)-2,2-dimethylpropyl]aminoxylpropionic acid to give a title copolymer.

IT 188526-94-5, N-Tert-butyl-N-(1-diethylphosphono-2,2-

dimethylpropyl) nitroxide

RL: CAT (Catalyst use); USES (Uses)

(preparation of copolymers with a composition gradient as sole

stabilizer in emulsion free-radical polymerization)

RN 188526-94-5 HCAPLUS

CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl

1,1-dimethylethyl (CA INDEX NAME)



IT 25852-37-3P, Butyl acrylate-methyl

methacrylate copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(use of copolymers with a composition gradient as sole

stabilizer in emulsion free-radical polymerization)

RN 25852-37-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl

2-propenoate (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CC 35-4 (Chemistry of Synthetic High Polymers)
 ST compn gradient copolymer stabilizer emulsion free radical polymn
 IT Polymerization
 (emulsion, radical; use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT Stabilizing agents
 (emulsion; use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT Adhesives
 (hot-melt; use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT Polymerization
 Polymerization catalysts
 (living, radical; use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT Cosmetics
 Latex
 Paints
 Surfactants
 (use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT 188526-94-5, N-Tert-butyl-N-(1-diethylphosphono-2,2-dimethylpropyl) nitroxide 654636-62-1,
 2-Methyl-2-[N-tert-butyl-N-(diethoxyphosphoryl-2,2-dimethylpropyl)aminoxyl]propionic acid
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT 25085-34-1P, Acrylic acid-styrene copolymer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (preparation of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT 7727-21-1, Potassium persulfate
 RL: CAT (Catalyst use); USES (Uses)
 (use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT 9003-49-0P, Butyl acrylate homopolymer 9003-53-6P,
 Polystyrene 25852-37-3P, Butyl acrylate-methyl methacrylate copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 IT 144-55-8, Carbonic acid monosodium salt, uses 151-21-3, Sodium lauryl sulfate, uses 25155-30-0, Sodium dodecylbenzenesulfonate
 RL: NUU (Other use, unclassified); USES (Uses)
 (use of copolymers with a composition gradient as sole stabilizer in emulsion free-radical polymerization)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2006:29371 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:129989
 TITLE: Pressure-sensitive adhesive based on acrylate block copolymers.

10550808-296659-EIC SEARCH

INVENTOR(S): Husemann, Marc; Dollase, Thilo
 PATENT ASSIGNEE(S): TESA AG, Germany
 SOURCE: Eur. Pat. Appl., 20 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1614735	A1	20060111	EP 2005-105518	2005 0622
<--				
R: AT, BE, CH, DE, DK, ES, FR, GE, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
DE 102004033242	A1	20060202	DE 2004-102004033242	2004 0708
<--				
US 20060009552	A1	20060112	US 2005-116568	2005 0428
<--				
JP 2006022329	A	20060126	JP 2005-192245	2005 0630
<--				
CN 1888000	A	20070103	CN 2005-10081413	2005 0630
<--				
BR 2005002510	A	20060221	BR 2005-2510	2005 0706
<--				
PRIORITY APPLN. INFO.:			DE 2004-102004033242A	2004 0708

ED Entered STN: 12 Jan 2006

AB A stable to diesel fuel pressure-sensitive acrylic adhesive comprises ≥50 weight% di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers having softening temperature 20 - 175° and -130 - 10° accordingly useful inside automobile engine. Thus, mixing a solution containing 442 g 2-ethylhexyl acrylate, 35 g acrylic acid, 32 g chain extended polystyrene (prepared by radical polymerizing 362 g styrene and 3.64 g bis-2,2'-phenylethyltrithiocarbonate in the presence of an initiator 10 h at 110°) and 0.12 g an initiator 24 h at 70° under Ar gave a triblock copolymer coated onto PET substrate and exhibiting after drying at 60° adhesion strength to steel 5.1 N/cm.

IT 61015-94-9, tert-Butyl 1-phenyl-2-methylpropyl nitroxide
 RL: CAT (Catalyst use); USES (Uses)
 (charge transfer agent; stable to diesel fuel
 pressure-sensitive acrylic adhesive comprising di- or
 triblock consisting of chemical distinguishable blocks
 of chain- extended acrylic and vinyl-acrylic
 monomers)

RN 61015-94-9 HCAPLUS

CN Nitroxide, 1,1-dimethylethyl 2-methyl-1-phenylpropyl (CA INDEX
 NAME)



IT 755000-11-4B, Butyl acrylate-methyl methacrylate triblock copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

RN 755000-11-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, triblock (CA INDEX NAME)

CM 1

CRM 141-32-2

CMF C7 H12 O2



CM 2

CRM 80-62-6

CMF C5 H8 O2



CC 38-3 (Plastics Fabrication and Uses)

ST stable diesel fuel pressure sensitive acrylic adhesive;
 acrylic vinyl block copolymer chain
 extended acrylic adhesive manuf

IT Adhesives
 (hot-melt, pressure-sensitive, crosslinked; stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

IT Crosslinking
 Crosslinking catalysts
 (photochem.; stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

IT Chain transfer agents
 (stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

IT Internal combustion engines

10550808-296659-EIC SEARCH

(stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers used inside automobile engine)

IT Polyesters, miscellaneous
 RL: MSC (Miscellaneous)
 (stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain-extended acrylic and vinyl-acrylic monomers)

IT 61015-54-9, tert-Butyl 1-phenyl-2-methylpropyl nitroxide
 610803-43-5
 RL: CAT (Catalyst use); USES (Uses)
 (charge transfer agent; stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

IT 108851-67-8
 RL: CAT (Catalyst use); USES (Uses)
 (charge transfer agent; stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain-extended acrylic and vinyl-acrylic monomers)

IT 755000-11-4P, Butyl acrylate-methyl methacrylate triblock copolymer 873197-37-6P, Acrylic acid-butyl acrylate-isobornyl acrylate-styrene triblock copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

IT 25038-59-9, Pet, miscellaneous
 RL: MSC (Miscellaneous)
 (substrate; stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain-extended acrylic and vinyl-acrylic monomers)

IT 842132-41-6P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (triblock; stable to diesel fuel pressure-sensitive acrylic adhesive comprising di- or triblock consisting of chemical distinguishable blocks of chain- extended acrylic and vinyl-acrylic monomers)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2009 ACS ON STM
 ACCESSION NUMBER: 2005:731281 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:194410
 TITLE: Method for radical emulsion polymerization with water-soluble alkoxyamines
 INVENTOR(S): Charleux, Bernadette; Guerret, Olivier; Magnet, Stephanie; Nicolas, Julien
 PATENT ASSIGNEE(S): Arkema, Fr.
 SOURCE: Fr. Demande, 33 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French

10550808-296659-EIC SEARCH

FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2866026	A1	20050812	FR 2004-1150	2004 0206
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FR 2866026	B1	20080523		
WO 2005082945	A1	20050909	WO 2005-FR234	2005 0203
			<--	
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TG, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1711536	A1	20061018	EP 2005-717546	2005 0203
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EP 1711536	B1	20080423		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
CN 1938338	A	20070328	CN 2005-80010393	2005 0203
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JP 2007520613	T	20070726	JP 2006-551881	2005 0203
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AT 393172	T	20080515	AT 2005-717546	2005 0203
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ES 2303232	T3	20080801	ES 2005-717546	2005 0203
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IN 2006DN04329	A	20070713	IN 2006-DN4329	2006 0727
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US 20070123669	A1	20070531	US 2006-588118	2006 0801
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KR 2007001124	A	20070103	KR 2006-715803	2006 0804
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PRIORITY APPLN. INFO.:			FR 2004-1150	A 2004 0206
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10550808-296659-EIC SEARCH

WO 2005-FR234

W

2005
0203

ED Entered STN: 12 Aug 2005

AB Polymers with controlled chain structure are manufactured by radical-emulsion polymerization in the presence of water-soluble R12C(CO2R2)ON(CMe3)CH(CMe3)P(O)(OEt)2 (R1 = Cl-3 alkyl, R2 = Li, Na, K, NH4, NBu4, NHBu3) (I). I is useful for the manufacture of diblock and triblock polymers.

IT 188526-94-5, SG1

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkoxyamine precursor; radical emulsion polymerization using water-soluble alkoxyamines having diethoxyphosphoryl groups)

RN 188526-94-5 HCAPLUS

CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
1,1-dimethylethyl (CA INDEX NAME)

IT 108501-19-5P, Butyl acrylate-methyl methacrylate-styrene block copolymer
254100-02-2P, 2-Hydroxyethyl acrylate-methyl methacrylate-styrene block copolymer
736998-33-7P, Ethyl acrylate-methyl methacrylate diblock copolymer
755000-11-4P, Butyl acrylate-methyl methacrylate triblock copolymer
861432-32-8P, 2-Methoxyethyl acrylate-methyl acrylate-methyl methacrylate block copolymer
861721-40-6P, Methyl methacrylate-perfluorooctyl acrylate diblock copolymer
861721-43-9P, Methyl methacrylate-octyl acrylate diblock copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(radical emulsion polymerization using water-soluble alkoxyamines having diethoxyphosphoryl groups)

RN 108501-19-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and ethenylbenzene, block (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 80-62-6

CMF C5 H8 O2



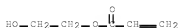
RN 254100-02-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
ethenylbenzene and 2-hydroxyethyl 2-propenoate, block (9CI) (CA
INDEX NAME)

CM 1

CRN 818-61-1

CMF C5 H8 O3



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 80-62-6

CMF C5 H8 O2



RN 736998-33-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl
2-propenoate, diblock (9CI) (CA INDEX NAME)

10550808-296659-EIC SEARCH

CM 1

CRN 140-88-5

CMF C5 H8 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



RN 755000-11-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, triblock (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



RN 861432-32-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methoxyethyl 2-propenoate and methyl 2-propenoate, block (9CI)
(CA INDEX NAME)

CM 1

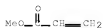
CRN 3121-61-7

CMF C6 H10 O3



CM 2

CRN 96-33-3
CMF C4 H6 O2



CM 3

CRN 80-62-6
CMF C5 H8 O2

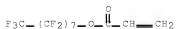


RN 861721-40-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
heptadecafluorooctyl 2-propenoate, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 15498-45-0
CMF C11 H3 F17 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



RN 861721-43-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with octyl
2-propenoate, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 2499-59-4
 CMF C11 H20 O2



CM 2

CRN 80-62-6
 CMF C5 H8 O2



- IC ICM C08F002-38
 ICS C08F002-24; C08F004-00; C08F293-00
 CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 2052-01-9, 2-Bromo-2-methylpropionic acid 188526-94-5,
 SG1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (alkoxyamine precursor; radical emulsion polymerization using
 water-soluble alkoxyamines having diethoxyphosphoryl groups)
 IT 9003-49-0P, Polybutyl acrylate 9003-53-6P, Polystyrene
 26914-43-2DP, Styrenesulfonic acid, diblock copolymers
 with styrene 105935-35-1P, Butadiene-methyl methacrylate
 -styrene block copolymer 108146-73-2P,
 Acrylonitrile-butadiene-styrene block
 copolymer 108501-19-5P, Butyl acrylate
 -methyl methacrylate-styrene block
 copolymer 150949-61-4P, Acrylonitrile
 -isoprene-styrene block copolymer
 254100-02-2P, 2-Hydroxyethyl acrylate-methyl
 methacrylate-styrene block copolymer
 694491-73-1P, Butadiene-styrene triblock copolymer
 696598-57-9P, Methyl methacrylate-styrene diblock
 copolymer 700836-36-8P, Isoprene-styrene triblock
 copolymer 705279-67-0P, Butyl acrylate-styrene
 triblock copolymer 710336-30-4P, Butyl
 acrylate-styrene diblock copolymer
 725713-28-0P, Butadiene-methyl methacrylate diblock
 copolymer 725718-17-2P, Styrene-vinyl acetate diblock
 copolymer 736998-33-7P, Ethyl acrylate
 -methyl methacrylate diblock copolymer
 737001-22-8P, Acrylamide-styrene diblock
 copolymer 753015-41-7P, 2-Ethylhexyl acrylate
 -styrene diblock copolymer 755000-11-4P, Butyl
 acrylate-methyl methacrylate triblock
 copolymer 861432-30-6P, Methacrylamide-styrene
 diblock copolymer 861432-31-7P, Perfluorooctyl
 acrylate-stearyl acrylate diblock
 copolymer 861432-32-8P, 2-Methoxyethyl
 acrylate-methyl acrylate-methyl
 methacrylate block copolymer
 861721-40-6P, Methyl methacrylate-perfluorooctyl

10550808-296659-EIC SEARCH

acrylate diblock copolymer 861721-41-7P,
 Perfluorooctyl acrylate-styrene diblock
 copolymer 861721-42-8P, Behenyl acrylate
 -perfluorooctyl acrylate diblock copolymer
 861721-43-9P, Methyl methacrylate-octyl
 acrylate diblock copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)
 (radical emulsion polymerization using water-soluble alkoxyamines having
 diethoxyphosphoryl groups)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L57 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:521786 HCAPLUS Full-text

DOCUMENT NUMBER: 143:60699

TITLE: Method for preparation of block
 copolymers and their uses in adhesive
 compositions

INVENTOR(S): Magnet, Stephanie; Guerret, Olivier; Passade,
 Boupat Nicolas; Laurichesse, Christian; El
 Bounia, Nour Eddine

PATENT ASSIGNEE(S): Arkema, Fr.

SOURCE: Fr. Demande, 40 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2863618	A1	20050617	FR 2003-14505	2003 1211
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FR 2863618	B1	20060310		
WO 2005066232	A1	20050721	WO 2004-FR3153	2004 1208

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 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SV, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MN, MZ, NA, SD, SL, SZ, TG, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
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 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, NI, TD, TG

EP 1718688	A1	20061108	EP 2004-805661	2004 1208
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EP 1718688	B1	20090506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				

CN 1914238	A	20070214	CN 2004-80041601	2004 1208
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JP 2007516326	T	20070621	JP 2006-543582	
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10550808-296659-EIC SEARCH

					2004 1208
AT 430767	T	20090515	AT 2004-805661	<--	
					2004 1208
KR 2007001074	A	20070103	KR 2006-711465	<--	
					2006 0609
US 20070021568	Al	20070125	US 2006-582535	<--	
					2006 0609
IN 2006DN03368	A	20070831	IN 2006-DN3368	<--	
					2006 0612
PRIORITY APPLN. INFO.:			FR 2003-14505	A	
					2003 1211
			WO 2004-FR3153	W	
					2004 1208
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ED Entered STN: 17 Jun 2005

AB Polymers, useful as hot-melt, pressure-sensitive adhesives, have linear or star blocks, are manufactured by radical polymerization controlled by nitroxides and initiated by alkoxyamines of nitroxides, and have ≥ 1 soft block with $T_g < 0^\circ$ and ≥ 1 hard block having T_g higher than room temperature. A typical ABA triblock polymer was manufactured by radical polymerization of 118 kg Bu acrylate (I) (B blocks) in PhEt in the presence of (EtO)₂P(:O)C(CMe₃)N(CMe₃)O (II) and a carbonyldimethylmethyl ether of II at 114° until 50% I conversion, removal of unreacted I and solvent, and polymerization of 100 kg styrene (A blocks) in the presence of the intermediate.

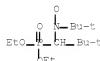
IT 188526-94-5 188526-94-5D, carbonyldimethylmethyl ether

RL: CAT (Catalyst use); USES (Uses)

(preparation of block copolymers by nitroxide-controlled, alkoxyamine-initiated radical polymerization for hot-melt, pressure-sensitive adhesives)

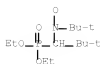
RN 188526-94-5 HCAPLUS

CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl 1,1-dimethylethyl (CA INDEX NAME)



RN 188526-94-5 HCAPLUS

CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl 1,1-dimethylethyl (CA INDEX NAME)



IT 853956-28-2P, Butyl acrylate-methacrylic
acid-styrene triblock copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(preparation of block copolymers by
nitroxide-controlled, alkoxyamine-initiated radical polymerization for
hot-melt, pressure-sensitive adhesives)
RM 853956-28-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and
ethenylbenzene, triblock (CA INDEX NAME)
CM 1
CRN 141-32-2
CMF C7 H12 O2



CM 2
CRN 100-42-5
CMF C8 H8



CM 3
CRN 79-41-4
CMF C4 H6 O2



IC ICM C08F293-00
ICS C09J153-00; C09J007-02; G09F003-10
CC 37-3 (Plastics Manufacture and Processing)
ST block polymer manuf nitroxide controlled alkoxyamine
initiated; hot melt adhesive butyl acrylate styrene
triblock copolymer manuf; pressure sensitive adhesive
butyl acrylate styrene triblock copolymer
manuf

- IT Amines, uses
 RL: CAT (Catalyst use); USES (Uses)
 (alkoxy-, preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)
- IT Phosphonates
 RL: CAT (Catalyst use); USES (Uses)
 (diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy
 derivs.; preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)
- IT Adhesives
 (hot-melt, pressure-sensitive; preparation of block
 copolymers by nitroxide-controlled,
 alkoxyamine-initiated radical polymerization for hot-melt,
 pressure-sensitive adhesives)
- IT Salts, uses
 RL: CAT (Catalyst use); USES (Uses)
 (of alkoxyamino phosphonate esters; preparation of block
 copolymers by nitroxide-controlled,
 alkoxyamine-initiated radical polymerization for hot-melt,
 pressure-sensitive adhesives)
- IT Amines, uses
 RL: CAT (Catalyst use); USES (Uses)
 (polyamines, nonpolymeric, polyethylene-,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy derivs.;
 preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)
- IT Polyamines
 RL: CAT (Catalyst use); USES (Uses)
 (polyethylene-, diethoxyphosphinyl-tert-butylmethyl-tert-
 butylaminooxy derivs.; preparation of block
 copolymers by nitroxide-controlled,
 alkoxyamine-initiated radical polymerization for hot-melt,
 pressure-sensitive adhesives)
- IT Nitroxides
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)
- IT Polymerization catalysts
 (radical; preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)
- IT 107-21-1D, Ethylene glycol,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy derivs.
 110-63-4D, 1,4-Butanediol,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy derivs.
 504-63-2D, 1,3-Propanediol,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy derivs.
 629-11-8D, 1,6-Hexanediol,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy derivs.
 839-90-7D, 1,3,5-Tris(2-hydroxyethyl)cyanuric acid,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminooxy derivs.
 7429-90-5D, Aluminum, salts with alkoxyamino phosphonate esters
 7439-89-6D, Iron, salts with alkoxyamino phosphonate esters
 7439-95-4D, Magnesium, salts with alkoxyamino phosphonate esters
 7439-96-5D, Manganese, salts with alkoxyamino phosphonate esters
 7439-98-7D, Molybdenum, salts with alkoxyamino phosphonate esters
 7440-02-0D, Nickel, salts with alkoxyamino phosphonate esters
 7440-05-3D, Palladium, salts with alkoxyamino phosphonate esters
 7440-06-4D, Platinum, salts with alkoxyamino phosphonate esters
 7440-22-4D, Silver, salts with alkoxyamino phosphonate esters
 7440-31-5D, Tin, salts with alkoxyamino phosphonate esters
 7440-32-6D, Titanium, salts with alkoxyamino phosphonate esters
 7440-33-7D, Tungsten, salts with alkoxyamino phosphonate esters

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7440-47-3D, Chromium, salts with alkoxyamino phosphonate esters
 7440-48-4D, Cobalt, salts with alkoxyamino phosphonate esters
 7440-50-8D, Copper, salts with alkoxyamino phosphonate esters
 7440-57-5D, Gold, salts with alkoxyamino phosphonate esters
 7440-66-6D, Zinc, salts with alkoxyamino phosphonate esters
 7440-67-7D, Zirconium, salts with alkoxyamino phosphonate esters
 7440-70-2D, Calcium, salts with alkoxyamino phosphonate esters
 43190-26-7D, 1,3,5-Tris(2-Aminoethyl)cyanuric acid,
 diethoxyphosphinyl-tert-butylmethyl-tert-butylaminoxy derivs.
 53544-93-7 188526-94-5 188526-94-5D,
 carbonyldimethylmethyl ether

RL: CAT (Catalyst use); USES (Uses)
 (preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)

IT 705279-67-0P, Butyl acrylate-styrene triblock
 copolymer 832077-83-5P, Acrylic acid-butyl
 acrylate-styrene triblock copolymer
 853956-28-2P, Butyl acrylate-methacrylic
 acid-styrene triblock copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
 or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of block copolymers by
 nitroxide-controlled, alkoxyamine-initiated radical polymerization for
 hot-melt, pressure-sensitive adhesives)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L57 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:361852 HCAPLUS Full-text

DOCUMENT NUMBER: 142:411841

TITLE: Process for the preparation of
 polyalkoxyamines for use as initiators in
 radical polymerization

INVENTOR(S): Magnet, Stephanie; Guerret, Olivier;
 Couturier, Jean-Luc

PATENT ASSIGNEE(S): Arkema, Fr.

SOURCE: Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

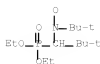
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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EP 1526138	B1	20080326		
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FR 2861394	A1	20050429	FR 2003-12452	2003 1024
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IN 2004DE02045	A	20060908	IN 2004-DE2045	2004

10550808-296659-EIC SEARCH

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ES	2303030	T3	20080801	ES 2004-292480	
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US	20050107577	A1	20050519	US 2004-969711	
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CN	1629136	A	20050622	CN 2004-10095971	
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JP	2005126442	A	20050519	JP 2004-309512	
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IN	2007DE00416	A	20070824	IN 2007-DE416	
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PRIORITY APPLN. INFO.:				FR 2003-12452	A
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ED	Entered STN: 28 Apr 2005				
AB	Polyalkoxyamines, useful as initiators without purification from preparation mixts. for radical polymerization especially in manufacture of block polymers, are prepared by reaction of R12C(CO2R2)ON(CMe3)CH(CMe3)P(O)(OEt)2 (R1 = C1-3 alkyl, R2 = H, C1-8 alkyl, Ph, Li, Na, K, NH4+, NBU4+, or NHBu3+) (I) with Z(CH:CH2)n [Z = aryl or Z1(XCO)n; Z1 = polyfunctional compound such as polyol, X = O, N having a C-containing group, or H, or S; n ≥ 2] (II) optionally in a solvent at 0-90° and I-II mol ratio n-1.5n. A typical polyalkoxyamine was manufactured by reaction of 42.1 g 2-bromo-2-methylpropionic acid 90 min with 78.9 g (EtO)2P(O)CH(CMe3)N(CMe3)O• in PhMe in the presence of Cu, CuBr, and N,N,N',N',N''-pentamethyldiethylenetriamine and reaction of 2 g resulting monoalkoxyamine 20 h at reflux with 0.55 g 1,4-butanediol diacrylate in EtOH.				
IT	188526-94-5				
	RL: RCT (Reactant); RACT (Reactant or reagent) (precursor; preparation of polyalkoxyamines for use as initiators in radical polymerization)				
RN	188526-94-5 HCAPLUS				
CN	Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl 1,1-dimethylethyl (CA INDEX NAME)				



IT 755000-11-4P, Butyl acrylate-methyl methacrylate triblock copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of polyalkoxyamines for use as initiators in radical polymerization)
 RN 755000-11-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, triblock (CA INDEX NAME)
 CM 1
 CRN 141-32-2
 CMF C7 H12 O2



CM 2
 CRN 80-62-6
 CMF C5 H8 O2



IC ICM C07F009-40
 ICS C08G073-00
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 29
 ST phosphonate ester polyalkoxyamine initiator radical polymn unsatd compd; methylpropionic acid phosphonate ester butanediol diacrylate adduct manuf
 IT 9003-49-0P, Polybutyl acrylate
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (block polymer precursor; preparation of polyalkoxyamines for use as initiators in radical polymerization)
 IT 502-44-3D, Caprolactone, dipentaerythritol hexaacrylate derivs. 1070-70-8, 1,4-Butanediol diacrylate 1321-74-0, Divinylbenzene, reactions 1322-23-2, Trivinylbenzene 1680-21-3, Triethylene glycol diacrylate 2052-01-9, 2-Bromo-2-methylpropionic acid 2223-82-7, Neopentyl glycol diacrylate 2274-11-5, Ethylene glycol diacrylate 3524-68-3, Pentaerythritol triacrylate 4074-88-8, Diethylene glycol diacrylate 4491-03-6, Bisphenol A diacrylate 4986-89-4, Pentaerythritol tetraacrylate 13048-33-4, 1,6-Hexanediol

10550808-296659-EIC SEARCH

diacrylate 15625-89-5, Trimethylolpropane
 triacrylate 19485-03-1, 1,3-Butanediol
 diacrylate 26570-48-9, Polyethylene glycol
 diacrylate 28961-43-5, Ethoxylated trimethylolpropane
 triacrylate 29570-58-9D, Dipentaerythritol
 hexaacrylate, caprolactone derivs. 40220-08-4,
 Tris(2-hydroxyethyl)isocyanurate triacrylate
 51728-26-8, Ethoxylated pentaerythritol tetraacrylate
 52408-84-1, Propoxylated glycerol triacrylate
 53879-54-2, Propoxylated trimethylolpropane triacrylate
 60506-81-2, Dipentaerythritol pentaacrylate 64401-02-1
 94108-97-1, Ditrimehylolpropane tetraacrylate
 124452-51-3, Cyclohexanedimethanol diacrylate
 188526-94-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (precursor; preparation of polyalkoxyamines for use as initiators in
 radical polymerization)

IT 755000-11-4P, Butyl acrylate-methyl
 methacrylate triblock copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of polyalkoxyamines for use as initiators in radical
 polymerization)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L57 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:815236 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:308633
 TITLE: Acrylate block

INVENTOR(S): copolymers used as pressure-sensitive
 adhesives for medical applications
 Husemann, Marc; Dollase, Thilo; Kummer,
 Andreas Burkhard

PATENT ASSIGNEE(S): Tesa AG, Germany; Beiersdorf AG
 SOURCE: Ger. Offen., 10 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10246503	A1	20031016	DE 2002-10246503	2002 1004

PRIORITY APPLN. INFO.: DE 2002-10213759 IA
 2002
 0326

ED Entered STN: 17 Oct 2003

AB Acrylate block copolymers or mixts. of acrylate block copolymers are used as pressure-sensitive adhesives for medical applications. Thus, Bu acrylate-styrene block copolymer was produced by RAFT polymerization of styrene in a first stage, the polymerization being carried out at 110° in the presence of 2,2'-azobis(2-methylbutanenitrile) (Vazo 67) and bis(2-phenylethyl) trithiocarbonate chain regulator, followed by addition of Bu acrylate/acetone and polymerization at 60° in the presence of Vazo 67. The block copolymer was applied onto a cotton textile substrate at 170° to produce bandages having good reversible adhesion to skin and good permeability to air and water vapor.

IT 61015-94-9, tert-Butyl 1-phenyl-2-methylpropyl nitroxide

RL: CAT (Catalyst use); USES (Uses)
 (acrylate block copolymers used
 as pressure-sensitive adhesives for medical applications)

RN 61015-94-9 HCAPLUS

10550808-296659-EIC SEARCH

CN Nitroxide, 1,1-dimethylethyl 2-methyl-1-phenylpropyl (CA INDEX NAME)



IT 108501-18-4P, Butyl acrylate-methyl methacrylate block copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (acrylate block copolymers used as pressure-sensitive adhesives for medical applications)
 RN 108501-18-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, block (CA INDEX NAME)

CM 1

CRN 141-32-2
 CMF C7 H12 O2



CM 2

CRN 80-62-6
 CMF C5 H8 O2



IC ICM A61L015-58
 ICS C09J153-00
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 63
 ST acrylate block copolymer medical pressure sensitive adhesive
 IT Medical goods
 (adhesive plasters; acrylate block copolymers used as pressure-sensitive adhesives for medical applications)
 IT Medical goods
 (bandages; acrylate block copolymers used as pressure-sensitive adhesives for medical applications)
 IT Polymerization
 (block, radical; acrylate block copolymers used as pressure-sensitive adhesives for medical applications)
 IT Polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)

10550808-296659-EIC SEARCH

(block; acrylate block
 copolymers used as pressure-sensitive adhesives for
 medical applications)

IT Adhesives
 (pressure-sensitive; acrylate block
 copolymers used as pressure-sensitive adhesives for
 medical applications)

IT Paper
 (substrate; acrylate block
 copolymers used as pressure-sensitive adhesives for
 medical applications)

IT Films
 Gels
 Textiles
 (substrates; acrylate block
 copolymers used as pressure-sensitive adhesives for
 medical applications)

IT Plastic foams
 RL: MSC (Miscellaneous)
 (substrates; acrylate block
 copolymers used as pressure-sensitive adhesives for
 medical applications)

IT 13472-08-7, Vazo 67 61015-94-9, tert-Butyl
 1-phenyl-2-methylpropyl nitroxide 610803-43-5
 RL: CAT (Catalyst use); USES (Uses)
 (acrylate block copolymers used
 as pressure-sensitive adhesives for medical applications)

IT 108501-18-4P, Butyl acrylate-methyl
 methacrylate block copolymer
 110772-34-4P, Butyl acrylate-styrene block
 copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); THU (Therapeutic use); BIOL (Biological study);
 PREP (Preparation); USES (Uses)
 (acrylate block copolymers used
 as pressure-sensitive adhesives for medical applications)

IT 259195-14-7P, Bis(2-phenylethyl) trithiocarbonate
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (chain-transfer agent for block copolymer
 preparation; acrylate block copolymers
 used as pressure-sensitive adhesives for medical applications)

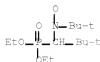
IT 75-15-0, Carbon disulfide, reactions 103-63-9, 2-Phenylethyl
 bromide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in production of chain-transfer agents for block
 copolymer preparation; acrylate block
 copolymers used as pressure-sensitive adhesives for
 medical applications)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

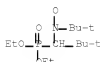
L57 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2009 ACS ON STN
 ACCESSION NUMBER: 2002:597366 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:155056
 TITLE: Coatings by controlled radical polymerization
 AUTHOR(S): Callais, Peter; Guerret, Olivier
 CORPORATE SOURCE: USA
 SOURCE: European Coatings Journal (2002),
 (7-8), 16, 18, 21-22, 24-25
 CODEN: ECJOEF; ISSN: 0930-3847
 PUBLISHER: Vincentz Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 12 Aug 2002

10550808-296659-EIC SEARCH

- AB Several techniques have been researched to develop ways to control free radical polymns. and terms like "Controlled Radical Polymerization" (CRP) or "living" free radical polymns. have been used to describe the process. The key aspect in CRP is its ability to eliminate the termination of growing free radical chains. This facilitates the synthesis of polymers with low polydispersities, as well as co- and multi-block copolymers. This technol. also allows well-defined polymer modification and grafting. Now, there is a family of nitroxide derivs. that can be applied to a wide range of free radical polymns. to perform controlled radical polymer synthesis. This paper will examine the use of two nitroxide compds., namely SG-1 and Monams, to synthesize acrylic High Solids Coating (HSC) resins with low polydispersities.
- IT 188526-94-5D, alkoxyamine derivs.
 RL: CAT (Catalyst use); USES (Uses)
 (Monams; use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)
- RN 188526-94-5 HCAPLUS
- CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
 1,1-dimethylethyl (CA INDEX NAME)



- IT 188526-94-5, SG 1
 RL: CAT (Catalyst use); USES (Uses)
 (SG 1 (initiator); use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)
- RN 188526-94-5 HCAPLUS
- CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
 1,1-dimethylethyl (CA INDEX NAME)



- IT 136456-42-3D, Butyl methacrylate-butyl acrylate-styrene block copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)
- RN 136456-42-3 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and ethenylbenzene, block (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2
 CMF C7 H12 O2



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 97-88-1

CMF C8 H14 O2



CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35

ST nitroxide controlled radical polymn acrylic coating

IT Nitroxides

RL: CAT (Catalyst use); USES (Uses)

(polymerization catalysts; use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)

IT Coating materials

Polymerization

Polymerization catalysts

(use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)

IT 188526-94-5D, alkoxyamine derivs.

RL: CAT (Catalyst use); USES (Uses)

(Monams; use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)

IT 188526-94-5, SG 1

RL: CAT (Catalyst use); USES (Uses)

(SG 1 (initiator); use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)

IT 110772-34-4P, Butyl acrylate-styrene block

copolymer 136456-42-3P, Butyl

methacrylate-butyl acrylate-styrene

block copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)

(use of nitroxide compds. in controlled radical polymerization for preparation of acrylic coatings)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L57 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 2000:34601 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 132:79008

TITLE: Emulsion polymerization in the presence of a
stable free radical

INVENTOR(S): Charleux, Bernadette; Lansalot, Muriel; Pirri,

10550808-296659-EIC SEARCH

Rosangela; Vairon, Jean-Pierre; Denie,
 Sandrine
 PATENT ASSIGNEE(S): Elf Atochem S.A., Fr.; Atofina
 SOURCE: Eur. Pat. Appl., 21 pp.
 CODEN: EPXXD4
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 970973	A1	20000112	EP 1999-112156	1999 0624
<--				
EP 970973	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2781486	A1	20000128	FR 1998-8916	1998 0710
<--				
FR 2781486	B1	20000908		
FR 2781487	A1	20000128	FR 1999-3941	1999 0330
<--				
FR 2781487	B1	20001208		
AT 284419	T	20041215	AT 1999-112156	1999 0624
<--				
ES 2235401	T3	20050701	ES 1999-112156	1999 0624
<--				
KR 2000011514	A	20000225	KR 1999-27050	1999 0706
<--				
US 6353065	B1	20020305	US 1999-347573	1999 0706
<--				
CA 2277696	A1	20000110	CA 1999-2277696	1999 0709
<--				
CA 2277696	C	20060905		
CN 1241577	A	20000119	CN 1999-111298	1999 0710
<--				
CN 1149228	C	20040512		
CN 1478802	A	20040303	CN 2003-2003145856	1999 0710
<--				
CN 101134801	A	20080305	CN 2006-10101193	1999 0710
<--				
JP 2000044610	A	20000215	JP 1999-229995	1999 0712

10550808-296659-EIC SEARCH

PRIORITY APPLN. INFO.: <--
FR 1998-8916 A
1998
0710
<--
FR 1999-3941 A
1999
0330
<--
CN 2003-2003145856 A3
1999
0710
<--

ED Entered STN: 14 Jan 2000

AB Radically polymerizable monomers are emulsion-polymerized in the presence of stable free radicals, so that the aqueous phase contains ≥50% water and the organic phase contains ≤50% monomer. This process gives polymers with low polydispersity and good linearity, and the manufacture of block polymers is possible. Thus, emulsion-polymerization of a mixture containing water 23.9, ethylene glycol (I) 71.7, Na styrenesulfonate 28.72, Na₂HPO₄ 0.1835, 4,4'-azobis(cyano-4-pentanoic acid) 0.44, N-tert-butyl-1-diethylphosphono-2,2-dimethylpropylnitroxide (II) 0.8, and NaOH 0.106 g 48 h at 125° under N, and polymerization of a mixture containing water 7.5, I 22.5, resulting polymer 5, styrene 1, and II 0.8 g 24 h at 125° gave a block copolymer.

IT 108501-19-5P, Butyl acrylate-methyl methacrylate-styrene block copolymer
121917-49-5P, Ethyl acrylate-methyl methacrylate block copolymer
254100-02-2P, 2-Hydroxyethyl acrylate-methyl methacrylate-styrene block copolymer
254100-03-3P, Methyl methacrylate-perfluorooctyl acrylate block copolymer
254100-05-5P 254100-06-6P, Methyl methacrylate-octyl acrylate block copolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(emulsion polymerization in the presence of stable free radicals)

RN 108501-19-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and ethenylbenzene, block (CA INDEX NAME)

CM 1

CRN 141-32-2

CMF C7 H12 O2



CM 2

CRN 100-42-5

CMF C8 H8



CM 3

10550808-296659-EIC SEARCH

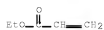
CRN 80-62-6
CMF C5 H8 O2



RN 121917-49-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl
2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

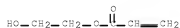
CRN 80-62-6
CMF C5 H8 O2



RN 254100-02-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
ethenylbenzene and 2-hydroxyethyl 2-propenoate, block (9CI) (CA
INDEX NAME)

CM 1

CRN 818-61-1
CMF C5 H8 O3



CM 2

CRN 100-42-5
CMF C8 H8

10550808-296659-EIC SEARCH



CM 3

CRN 80-62-6

CMF C5 H8 O2



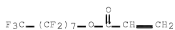
RN 254100-03-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
heptadecafluorooctyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 15498-45-0

CMF C11 H3 F17 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



RN 254100-05-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with
heptadecafluorooctyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 32360-05-7

CMF C22 H42 O2



CM 2

10550808-296659-EIC SEARCH

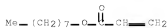
CRM 15498-45-0
CMF C11 H3 F17 O2



RN 254100-06-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with octyl
2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRM 2499-59-4
CMF C11 H20 O2

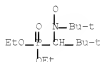


CM 2

CRM 80-62-6
CMF C5 H8 O2



IT 188526-94-5
RL: NUU (Other use, unclassified); USES (Uses)
(emulsion polymerization in the presence of stable free radicals)
RN 188526-94-5 HCAPLUS
CN Nitroxide, 1-(diethoxyphosphinyl)-2,2-dimethylpropyl
1,1-dimethylethyl (CA INDEX NAME)



IC ICM C08F004-00
ICS C08F002-38
CC 35-4 (Chemistry of Synthetic High Polymers)
ST emulsion block polymn stable free radical;
styrenesulfonate emulsion block polymn tertiary
butyldiethylphosphonodi methylpropylnitroxide; tertiary
butyldiethylphosphonodi methylpropylnitroxide emulsion
block polymn styrene

10550808-296659-EIC SEARCH

IT Polymerization
(block; emulsion polymerization in the presence of stable free radicals)

IT 9003-53-6P, Polystyrene 39307-76-1P, Sodium styrenesulfonate-styrene copolymer 105935-35-1P, Butadiene-methyl methacrylate-styrene block copolymer 106399-43-3P, Butadiene-methyl methacrylate block copolymer 106911-77-7P, Methyl methacrylate-styrene block copolymer 108501-19-5P, Butyl acrylate-methyl methacrylate-styrene block copolymer 110772-34-4P, Butyl acrylate-styrene block copolymer 119708-91-7P, 2-Ethylhexyl acrylate-styrene block copolymer 121917-49-3P, Ethyl acrylate-methyl methacrylate block copolymer 178034-20-3P, Sodium styrenesulfonate-styrene block copolymer 185510-41-2P, Perfluorooctyl acrylate-styrene block copolymer 254100-02-2P, 2-Hydroxyethyl acrylate-methyl methacrylate-styrene block copolymer 254100-03-3P, Methyl methacrylate-perfluorooctyl acrylate block copolymer 254100-04-4P, Behenyl acrylate-perfluorooctyl acrylate block copolymer 254100-05-5P 254100-06-6P, Methyl methacrylate-octyl acrylate block copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)
(emulsion polymerization in the presence of stable free radicals)

IT 188526-94-5
RL: NUU (Other use, unclassified); USES (Uses)
(emulsion polymerization in the presence of stable free radicals)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

FULL SEARCH HISTORY

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FILE 'HCAPLUS' ENTERED AT 09:50:48 ON 12 JUN 2009

E US20080050572/PN

L1 2 SEA SPE=ON ABB=ON PLU=ON US20080050572/PN
 D SCA
 SEL RN

FILE 'REGISTRY' ENTERED AT 09:52:33 ON 12 JUN 2009

L2 32 SEA SPE=ON ABB=ON PLU=ON (762301-15-5/BI OR
 9002-86-2/BI OR 9003-07-0/BI OR 9003-53-6/BI OR
 9003-56-9/BI OR 107-21-1/BI OR 110-63-4/BI OR 135028-55
 -6/BI OR 13598-36-2/BI OR 43190-26-7/BI OR 504-63-2/BI
 OR 629-11-8/BI OR 7429-90-5/BI OR 7439-89-6/BI OR
 7439-95-4/BI OR 7439-96-5/BI OR 7439-98-7/BI OR
 7440-02-0/BI OR 7440-05-3/BI OR 7440-06-4/BI OR
 7440-22-4/BI OR 7440-31-5/BI OR 7440-32-6/BI OR
 7440-33-7/BI OR 7440-47-3/BI OR 7440-48-4/BI OR
 7440-50-8/BI OR 7440-57-5/BI OR 7440-66-6/BI OR
 7440-67-7/BI OR 7440-70-2/BI OR 9002-98-6/BI)
 D SCA

FILE 'STNGUIDE' ENTERED AT 09:54:51 ON 12 JUN 2009

FILE 'REGISTRY' ENTERED AT 10:02:03 ON 12 JUN 2009

L3 2 SEA SPE=ON ABB=ON PLU=ON L2 AND 3/NC
 D SCA
 D
 L4 81856 SEA SPE=ON ABB=ON PLU=ON 80-62-6/CRN
 L5 53869 SEA SPE=ON ABB=ON PLU=ON 79-41-4/CRN
 L6 52656 SEA SPE=ON ABB=ON PLU=ON 141-32-2/CRN
 L7 27707 SEA SPE=ON ABB=ON PLU=ON (L4 OR L5) AND L6
 L8 6751 SEA SPE=ON ABB=ON PLU=ON L4 AND L5 AND L6

FILE 'LREGISTRY' ENTERED AT 10:05:42 ON 12 JUN 2009

L9 STR
 L10 STR L9

FILE 'REGISTRY' ENTERED AT 10:08:17 ON 12 JUN 2009

L11 50 SEA SSS SAM L9 AND L10
 L12 SCR 2043
 L13 50 SEA SSS SAM L9 AND L10 AND L12

FILE 'STNGUIDE' ENTERED AT 10:09:20 ON 12 JUN 2009

FILE 'REGISTRY' ENTERED AT 10:13:28 ON 12 JUN 2009

L14 114589 SEA SSS FUL L9 AND L10 AND L12
 SAV TEMP L14 FER808REG/A
 L15 1 SEA SPE=ON ABB=ON PLU=ON L2 AND L14
 D SCA

FILE 'HCAPLUS' ENTERED AT 10:15:30 ON 12 JUN 2009

L16 5 SEA SPE=ON ABB=ON PLU=ON L15
 D SCA
 L17 2265 SEA SPE=ON ABB=ON PLU=ON L14(L)BLOCK?

FILE 'REGISTRY' ENTERED AT 10:19:04 ON 12 JUN 2009

L18 2 SEA SPE=ON ABB=ON PLU=ON L2 AND P/ELS
 D SCA
 D SCA L2

FILE 'STNGUIDE' ENTERED AT 10:20:11 ON 12 JUN 2009

10550808-296659-EIC SEARCH

L19 FILE 'LREGISTRY' ENTERED AT 10:22:24 ON 12 JUN 2009
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 L20 50 SEA SSS SAM L19
 L21 2 SEA SPE=ON ABB=ON PLU=ON L2 AND C6/ES
 D SCA
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 L22 STR
 FILE 'REGISTRY' ENTERED AT 10:44:04 ON 12 JUN 2009
 D SCA L18
 D L18 1-2 RN STR
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 FILE 'REGISTRY' ENTERED AT 10:46:35 ON 12 JUN 2009
 L23 5 SEA SSS SAM L22
 D SCA
 FILE 'LREGISTRY' ENTERED AT 10:47:42 ON 12 JUN 2009
 L24 STR L22
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 L25 5 SEA SSS SAM L24
 L26 63 SEA SSS FUL L24
 L27 1 SEA SPE=ON ABB=ON PLU=ON L2 AND L26
 D SCA
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 L28 70 SEA SPE=ON ABB=ON PLU=ON L26
 L29 7 SEA SPE=ON ABB=ON PLU=ON L17 AND L28
 D SCA
 FILE 'REGISTRY' ENTERED AT 10:52:20 ON 12 JUN 2009
 E C13H30NO4P/MF
 L30 22 SEA SPE=ON ABB=ON PLU=ON C13H30NO4P/MF
 D SCA
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 FILE 'REGISTRY' ENTERED AT 10:57:54 ON 12 JUN 2009
 E "PHOSPHONIC ACID, P-[1-[(1,1-DIMETHYLETHYL)HYDROXYAMI
 E C13 H29 N O4 P/MF
 L31 4 SEA SPE=ON ABB=ON PLU=ON C13 H29 N O4 P/MF
 D SCA
 L32 1 SEA SPE=ON ABB=ON PLU=ON L31 AND ?NITROXIDE?/CNS
 D SCA
 D CN
 E C14H21NO/MF
 FILE 'STNGUIDE' ENTERED AT 11:00:50 ON 12 JUN 2009
 FILE 'REGISTRY' ENTERED AT 11:04:15 ON 12 JUN 2009
 E C14H22NO/MF
 L33 144 SEA SPE=ON ABB=ON PLU=ON C14H22NO/MF
 E NITROXIDE/CNS
 L34 8424 SEA SPE=ON ABB=ON PLU=ON ?NITROXIDE?/CNS
 L35 16 SEA SPE=ON ABB=ON PLU=ON L33 AND L34
 D SCA
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 FILE 'REGISTRY' ENTERED AT 11:07:36 ON 12 JUN 2009
 E 'NITROXIDE, 1,1-DIMETHYLETHYL 2-METHYL-1-PHENYLPROPYL

10550808-296659-EIC SEARCH

L36 1 SEA SPE=ON ABB=ON PLU=ON "NITROXIDE, 1,1-DIMETHYLETH
YL 2-METHYL-1-PHENYLPROPYL"/CN
D SCA

FILE 'HCAPLUS' ENTERED AT 11:08:20 ON 12 JUN 2009

L37 222 SEA SPE=ON ABB=ON PLU=ON L32
L38 104 SEA SPE=ON ABB=ON PLU=ON L36
L39 6 SEA SPE=ON ABB=ON PLU=ON L29 AND (L37 OR L38)
D SCA
L40 88762 SEA SPE=ON ABB=ON PLU=ON L14
L41 6262 SEA SPE=ON ABB=ON PLU=ON L8
L42 88762 SEA SPE=ON ABB=ON PLU=ON L40 OR L41
L43 13 SEA SPE=ON ABB=ON PLU=ON L42 AND L28
L44 9 SEA SPE=ON ABB=ON PLU=ON L43 AND (L37 OR L38)
L45 7 SEA SPE=ON ABB=ON PLU=ON L44 AND BLOCK?
L46 7 SEA SPE=ON ABB=ON PLU=ON L39 OR L45
L47 QUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT
L48 QUE SPE=ON ABB=ON PLU=ON (PY=<2004 OR PRY=<2004 OR
AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT
L49 4 SEA SPE=ON ABB=ON PLU=ON L46 AND (L47 OR L48)
D 1-4 AU

FILE 'REGISTRY' ENTERED AT 11:16:11 ON 12 JUN 2009
SAV TEMP L26 FER808REGA/A

FILE 'HCAPLUS' ENTERED AT 11:17:16 ON 12 JUN 2009

SAV TEMP L49 FER808HCP/A
D QUE STAT L49
D L49 1-4 IBIB ED ABS HITSTR HITIND
D QUE STAT L49
L50 9 SEA SPE=ON ABB=ON PLU=ON L43 AND (L47 OR L48)
L51 5 SEA SPE=ON ABB=ON PLU=ON L50 NOT L49
D SCA
D 1-5 AU
L52 5 SEA SPE=ON ABB=ON PLU=ON L51 AND (BLOCK? OR
COPOLYM? OR CO(A)POLYM?)
D SCA
L53 29 SEA SPE=ON ABB=ON PLU=ON L42 AND (L37 OR L38)
L54 29 SEA SPE=ON ABB=ON PLU=ON L53 AND (BLOCK? OR
COPOLYM? OR CO(A)POLYM?)
L55 29 SEA SPE=ON ABB=ON PLU=ON L54 AND ?ACRYL?
L56 14 SEA SPE=ON ABB=ON PLU=ON L55 AND (L47 OR L48)
L57 8 SEA SPE=ON ABB=ON PLU=ON L56 NOT (L49 OR L52)
D 1-8 AU
D QUE STAT L52
D L52 1-5 IBIB ED ABS HITSTR HITIND
D QUE STAT L57
D L57 1-8 IBIB ED ABS HITSTR HITIND